AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Original) Apparatus for obtaining information relative to a target area over which the apparatus travels and projects energy toward the target area in periodic transmission cycles, comprising:

an array of active elements having first and second sections with each said element providing an output signal in response to energy reflected back from said target area;

said first section of elements having a length L;

said second section of elements having first and second spaced apart elements separated by a gap and spaced by a defined distance of M, wherein $M \leq L$;

signal processing circuitry including a computation circuit for computing any yaw and sway of said apparatus during said travel, to provide corresponding correction signals;

said signal processing circuitry also including circuitry for generating synthetic aperture signals;

the output signals from said elements of said first section being provided to said circuitry which generates said synthetic aperture signals;

the output signals from said first and second spaced apart elements of said second section being exclusively provided to said computation circuit which computes yaw and sway;

the output signal from at least one element of said first section also being provided to said computation circuit which computes yaw and sway;

said correction signals being provided to said circuitry which generates said synthetic aperture signals, to modify the signals provided to it in the presence of any yaw or sway.

2. (Original) Apparatus according to claim 1 wherein:

said distance M is equal to said length L of said first section.

3. (Original) Apparatus according to claim 1 wherein:

said distance M is less than said length L of said first section; and wherein

the output signal from two elements of said first section are provided to said computation circuit which computes yaw and sway.

4. (Original) Apparatus according to claim 1 wherein:

one of said elements of said array is also operable to project said energy toward said target area.

5. (Original) Apparatus according to claim 1 wherein:

said energy is projected toward said target area each time said first section travels half its length.

6. (Original) Apparatus according to claim 1 wherein:

said travel is through a water environment; and

said elements are sonar transducers.

7. (Currently amended) An array for use in a synthetic aperture system, comprising:

a plurality of active elements extending along a line;

said plurality of elements including first and second connected sections of active elements, and wherein said first section is a fully populated section of elements and said second section is a non-fully populated section of elements, said second section including an end element which is displaced from the remainder of said elements~~, defining a~~ in said second section by a gap of at least one element.

8. (Currently amended) An array for use in a synthetic aperture system, comprising:

first and second sections of active elements;

said first section comprising a fully populated section of active elements including a plurality of mutually adjacent elements; and wherein

said second section contacts said first section and comprises a non-fully populated section of active elements including ~~includes at least~~ first and second ~~spaced apart~~ elements separated by a gap of one or more elements.

9. (Original) An array according to claim 8 wherein:

said first section of active elements has a length L;

said second section of active elements has a defined length M; and wherein

$M \leq L$.

10. (New) An array according to claim 8 wherein said first element comprises the first numbered element in said second section of active elements and said second element comprises the last numbered element in said second section of active elements.